

Designing A Process For Ethylene Vinyl Acetate Blood Bags

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Context

Polyvinyl chlorine is widely used in the medical industry to make disposable medical products



DEHP, a plasticizer, is added to these products to soften them

Problem







High Levels of DEHP

Banned

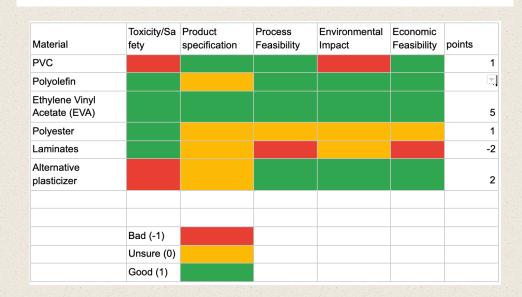
Dioxin

Objective

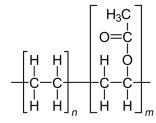
The goal of this project is to design a process for ethylene vinyl acetate, an alternative to polyvinyl chlorine, thus providing a safe, sustainable, and cost-effective design.

Possible Alternatives

- Ethylene Vinyl Acetate
- Polyolefin
- Polyester
- Laminates
- An Alternative Plasticizer



Ethylene Vinyl Acetate



Polymerization Process

The process will include a reaction and a separation that will be able to produce EVA that is at a competitive price in the current market. It must also include the following specifications listed below.

Specifications

- Temperature
- Pressure
- Production Rate
- Product Weight
- Leaching Concentration
- Medical Grade

